

SOME FLIES OF THE FAMILY ASILIDAE (DIPTERA)

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In this paper are descriptions of several species and genera of robber-flies.

Zabrops new genus

Type of genus: *Triclis tagax* Williston, 1884. Other American flies put in *Triclis* Loew probably belong here.

Small flies with short, appressed pile and comparatively robust form. From *Triclis* Loew they differ in the gibbous and prominent face, with numerous bristles below and little or no hairs in the upper part. Third antennal segment swollen. Female terminalia generally similar to others in the Laphystini. Length 11 mm.

Head: The face is prominent, short beneath the antenna but rising below into a gently rounded eminence, occupying at least three-fourths of the face. The occiput is prominent below due to the gradual anterior recession of the eye; its pile is dense and fine with 4 or 5 weak bristles on upper occiput. Proboscis short, robust, stout at base and not protruding beyond the face. Palpus minute, composed of 2 short segments. Antenna nearly as long as head; third segment swollen shortly beyond its base, and with style included, is about as long as first 2 segments combined. At its apex it bears a short, stout, spoon-shaped microsegment with enclosed spine. *Thorax*: The mesonotal pile is abundant, more or less appressed and undifferentiated. The lateral bristles are weak and consist of 2 notopleural, 3 or 4 supraalar, 2 or 3 postalar, and 4 to 6 pairs on the scutellum. Prosternum not or only slightly dissociated ventrolaterally. *Legs*: The legs are stout, the hind femur a little swollen distally and all legs with dense, appressed, setate pile. The hind femur bears 4 dorsolateral bristles, 2 lateral bristles and 3 dorsomedial bristles, which are near the apex; the ventral surface of both hind femur and tibia have a dense brush of fine,

erect pile. Tibial bristles rather strong; no spine on anterior tibial apex. Claws sharp, pulvilli and empodium long. *Wings*: The marginal cell is widely open, the second vein not recurrent; first posterior cell closed and stalked and the fourth posterior cell also; anal cell closed and stalked. Alula small; ambient vein complete. *Abdomen*: The abdomen is comparatively robust, the first 2 tergites are at least as wide as the mesonotum; 6 tergites in males. The pile is dense, appressed and setate and there are 6 or 7 slender bristles on the sides of the first tergite, a patch of 6 to 8 or fewer on the sides of the second tergite and 1 or 2, or none on the third tergite and none beyond. Male terminalia partly rotate or wholly rotate. Epandrium undivided, uncleft, with short, blunt, posterolateral process; surstylus short, smaller, broad at base; hypandrium a mere lip-like extension.

Broticosia new genus

Type of genus: *Broticosia rapax* new species.

Small to medium size flies with laterally compressed abdomen and subcircular head and very narrow face. Bristly pile of face concentrated in a mane. Hypandrium drawn out as long, arched process which is curved downward. Length 13 mm.

Head: The face is very narrow and head nearly circular. The pile of the face is abundant and massed into a rather dense, vertical row of very long, slender bristles. Antenna elongate; the first 2 segments combined are about as long as the third segment, the microsegment excluded; this microsegment is long, held at a slight angle, is a little less than one-third as long as the third segment and is spoon-shaped at apex with long, dorsal, spinous bristle. Palpus of 2 segments. *Thorax*: The pile of the mesonotum consists of numerous, very long, fine bristles down the middle of the mesonotum with shorter bristles laterally; acrostical elements differentiated; dorsocentral bristles become extremely long and numerous opposite the wing. Scutellum with some stiff, bristly hairs projecting backward from margin. *Legs*: All femora and tibiae slender.

The hind femur bears 8 bristles, which includes 1 at apex and 2 weak, dorsomedial elements at apex; ventrally there is a moderately abundant fringe of long, fine, stiff hairs. Apex of anterior tibia without spine. Claws sharp; pulvilli well developed. *Wings*: The wings are hyaline and the marginal cell open. Fourth posterior cell narrowed to two-thirds its maximum width; anal cell widely open. Alula narrow and linear; ambient vein complete. *Abdomen*: The abdomen is slender and somewhat compressed. Seven tergites in the male with the eighth present only as a linear flap; all tergites without bristles. Male terminalia large, rotate; the hypandrium long, drawn out into a long process arched downward over the remainder of terminalia.

***Broticosia rapax* new species**

Length 13 mm.

Female. *Head*: The head is black everywhere, including antennae. The pile on the lower third of the occiput is light brownish yellow, except for a fringe of fine, black hairs along the outer margin of the occiput. The pile on the base of the proboscis is yellow, except laterally where it is black. The predominantly black mystax has 3 or 4 yellow hairs in the middle or at the epistomal margin. All other pile and bristles of the face black. The upper part of occiput has long, abundant, very fine, stiff hairs, becoming very slightly stouter dorsally but nowhere becoming bristles. Ventral surface of first antennal segment and a narrow, medial band over the entire length of face and the gibbosity covered with quite long, numerous, slender, black, bristly hairs. Whole face with appressed, whitish pubescence continued on the cheeks. The antenna are quite slender, the third antennal segment is attenuate and bears a short, broad, oval, spoon-shaped microsegment containing a small spine. *Thorax*: The thorax is polished black, scantily covered over the sides of the mesonotum. Scutellar disc and pleuron with an exceptionally fine, whitish micropubescence, which on the anterior half of the thorax is more pollen-like and on the posterior half somewhat coarser. There are fine, long, acrostical, bristly

hairs and equally long or longer dorsocentral hairs and 6 of the posterior, dorsocentral elements somewhat more stout but not conspicuous. There are 2 or 3 stout, long, notopleural bristles, 1 post supraalar, 2 on the post callus. The scutellar margin, however, bears only 3 or 4 pairs of long, slender, yellow, bristly hairs and a few white hairs on the disc. *Legs*: The legs are bright orange brown. The basal half of the hind femora, the extreme base of the other femora, apices of hind tibia, apex of hind basitarsus and the last 4 segments of all of the tarsi black. Bristles reddish orange. Most of the pile is composed of fine, black, appressed setae but the hind femur bears a ventral fringe of long, scattered, white hairs, others dorsally and medially on the basal half and the middle femur has a ventral and dorsal row of whitish pile, the ventral hairs long. Claws slender, black, reddish at the base; pulvilli long and rather slender. *Wings*: The wings are pale brownish hyaline with reddish brown villi densely on the apical and posterior margins widely. *Abdomen*: The abdomen is everywhere polished black with a strong, greenish, brassy reflection. The pile is scanty, fine and white for the most part, short, subappressed dorsally, becoming long and conspicuous though scanty on the sides of the tergites and sternites. Seventh and eighth tergites, especially the eighth, with black setae. On the whole posterior margin of the laterally compressed eighth tergite there is a conspicuous fringe of long, regularly spaced, slender, black bristles, the elements rather widely separated. The whole abdomen seems to be somewhat compressed laterally but this may not be natural.

Type: Female; National Park, Darling Range, West Australia, October 18, 1931, Harvard Australian Expedition. Collected by P. J. Darlington. Type in the Museum of Comparative Zoology.

***Aplestobroma* new species**

Type of genus: *Aplestobroma avida* new species.

Medium size flies, characterized by cylindroid, narrow abdomen and subcircular, narrow face. Male with long, dorsally placed, protuberant, curved hypandrium. Female

terminalia deeply recessed and without spines. Length 16 mm.

Head: The face is scarcely visible in profile on upper part and only moderately protuberant below; from anterior aspect the head is subcircular and the face quite narrow. Palpus of 2 segments. Proboscis short and stout. Antenna elongate, slender, longer than the head; first 2 segments subequal. Third segment slender with parallel sides to the middle and gently tapering beyond; it bears a short, stout microsegment with large, apical opening and short spine. *Thorax*: The pile is scanty and fine, composed of long, erect, or subappressed setae; it bears a single row of acrostical elements, a double row of dorsocentral elements which become long opposite the wing and beyond. Lateral bristles are well developed; scutellar margin with 1 pair of stout bristles or 2 to 8 pairs of slender, weak bristles. *Legs*: All the femora and tibiae are slightly elongate and rather slender. Bristles moderately well developed on the legs; the hind femur has as many as 20 bristles, of which the lateral row may contain as many as 9 or as few as 4; base ventrally with 3 and apex dorsally with 3 bristles. Apex of anterior tibia without spine. Claws sharp; pulvilli long and well developed. *Wings*: The marginal cell is widely open; the posterior branch of the third vein ends at or barely above the wing apex; the posterior branch ends well behind the apex. Fourth posterior cell closed and stalked. Anal cell widely open. Ambient vein complete. *Abdomen*: The abdomen is slender and subcylindroid; 7 tergites well developed in the male, the eighth a short flap. Eight well developed segments in females. Male terminalia fully rotate. Epandrium fully cleft; the superior forceps long, each half robust with long, conspicuous process; the hypandrium forms a long, medial, curved process arched downward over the other parts. Female terminalia deeply recessed and without spines on acanthophorites.

***Aplestobroma avida* new species**

Length 16 mm.

Male. *Head*: The head is black. Ocellarium and most of the immediate post vertex bare and polished, although

a narrow stripe of yellow pollen runs from the cervix to the back of the ocelli. Front with scanty, yellow pollen, somewhat more conspicuous on the upper half; side of front with 4 slender, black bristles on each side, face with dense, appressed, pale yellow pubescence continued on to the cheeks. Lateral occipital pubescence of the same color. The bristly pile of the lower occiput and its coarse hairs pale yellow. On the upper half there are only numerous, slender, black bristles in several rows, stouter above, but never very stout, the dorsal elements strongly proclinate. Ocellarium bristles black and very weak. Mystax of face composed of numerous, long, moderately stout, yellowish white bristles in a high, medial triangle on the lower fourth of face, which is barely produced. Upper face with 2 vertical rows of long, bristly, yellow hairs which become longer dorsally and curve downward. Proboscis and antenna black, bristles and hairs of the former yellow, of the latter black. Second antennal segment not as long as the first segment, third segment a little attenuate with short, cylindrical microsegment, which bears at its apex a small spine. *Thorax*: The thorax is black, opaque with well differentiated, fine, acrostical and dorsocentral rows of setae. The dorsocentral row posteriorly has 4 stout and 6 weak, long bristles. Humerus and whole lateral margins and a short, medial, prescutellar wedge-shaped stripe pale yellow micropubescent. Whole disc of the flat scutellum with similar, paler pubescence. Upper half of mesopleuron and whole pleuron except the greater part of the mesopleuron is yellowish micropubescent. Coxae and trochanters black. *Legs*: The legs are very pale, reddish brown; apices of all of the tibiae and femora narrowly blackish. Tarsi black, except the basal half of the basitarsus, all of which are reddish. Claws moderately sharp; pulvilli well developed. *Wings*: The wings are almost hyaline, but everywhere with sparse, greyish villi, except that much of the basal cells are bare. *Abdomen*: The abdomen is black to and including the base of the sixth tergite and sternite; beyond this point the abdomen is light brownish orange. Pile of the abdomen pale yellow, more reddish on the orange colored, apical segments and appearing dark

in some lights on the black tergites. Base of the third to sixth tergite and middle of the second with a transverse band of sparse, greyish yellow pollen or micropubescence. These bands, however, do not extend down upon the sides of the segment. Male terminalia entirely light orange brown.

Female. The female is similar to the male, with the terminalia deeply recessed.

Type: a female; Mt. Lookout, New South Wales, collected Dec. 16th, 1952 and presented to the author by Dr. I. M. Makerras. Paratypes 3 males and 3 females from Tubrabucca, New South Wales, Jan. 10-23, 1948, R.R.M.P. and A.N.B., 1 pair in the author's collection, 2 pairs in the National Museum at Melbourne. 1 paratype male, Barrington Tops, Jan. 25, S.U. Zool. Exped., 1 paratype female, Mt. Gingern, Jan. 14, 1950, S.J. Paramonov, both in the C.S.I.R.O. collection, Canberra, A.C.T.